Attachment B – Collection System Recommendations Discussion

The recommendations to authorize the use of contingencies for road restoration purposes under both pipeline contracts are a result of "quantity estimates" included in construction documents when bids were received. Use of "quantity estimates" is a common bidding approach which provides contractors with a fixed quantity on which to base their "per-unit" bids. Actual costs are paid based on the actual quantity of units used during a project's construction. For the pipeline contracts, the "units" included asphalt pavement and road base that was expected to be needed to repair the roads after the pipelines were installed.

The pipeline contracts have about 80% of pipes constructed and road restoration is about 75% complete. With the restoration activities following pipeline construction, the additional quantities needed for road restoration are being quantified by the construction manager with additional oversight and analysis involving Public Works staff within our Development Services and Transportation/Roads divisions.

Development Services staff works with developers when their projects involve encroachment permits and road impacts such as trench repairs and other restoration efforts. Transportation staff is responsible for the County's maintained system and includes Roads staff that has a strong historical understanding of conditions in Los Osos. Through the coordinated efforts, staff has developed specific strategies to mitigate costs resulting from the actual quantities that are being used in restoration efforts. Staff also compared estimates of restoration costs that would have been incurred by the LOCSD had their project been constructed, based on that project's bid documents. The purpose of the comparison to the LOCSD project was to provide a gauge to assess the revised quantity estimates, cost impacts, and mitigating strategies.

The strategy developed prior to bidding the contracts was to require basic trench restoration in the pipeline contracts, with planned subsequent resurfacing work to return the roads to at least the pre-existing condition prior to the pipeline installation (consistent with the "trench cut fee" approach required of other development). Subsequent resurfacing work would also address road improvement needs resulting from deferred maintenance and would be done by separate contract after the pipelines are completed, with the costs to be shared between the sewer project and Roads Fund. This strategy was determined to be the most cost effecting approach which would achieve the best quality of final product. It will also address an equity issue by reducing costs paid by Los Osos residents for paving that represents an improvement to road quality and would have otherwise been completed with Roads Funds.

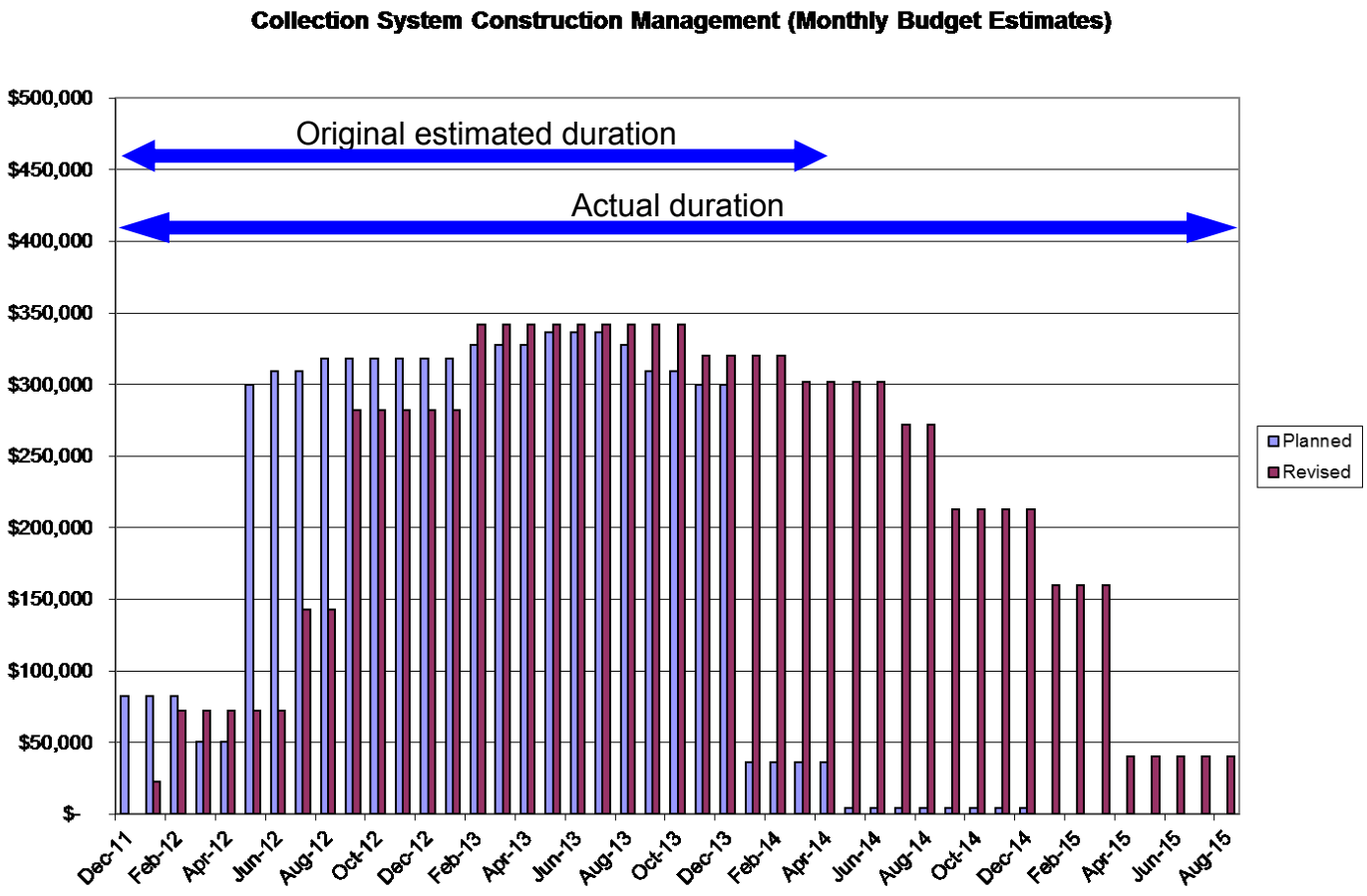
As construction progressed it became evident that additional quantities were required for road restoration over the pipeline trenches. Staff followed the strategy described above to utilize the most cost effective solution for each road segment and the increased cost for additional quantities has resulted in estimated reductions in costs for subsequent resurfacing.

Collection System Amendment for Construction Management Services – HDR Engineering

An engineering services agreement with HDR Engineering for the construction management of the collection system was approved by your Board on December 13, 2011. At that time the duration of the collection system construction was assumed to be 18 months. The Request for Proposals process, and the subsequent fee estimate in the approved agreement, was based on an assumed 18 month construction schedule.

As part of the Project's final design efforts, a constructability review was completed. The schedule for the construction contracts included in construction documents was extended compared to the original estimate of 18 months, based on the more detailed analysis of construction activities, the intensity of construction that would be needed under both scenarios, and the risk of construction conflicts that could result from an 18 month compressed schedule. The collection system contracts ultimately included schedules of 2 years for the pipeline contracts and 2½ years for the pump stations contract. The shorter original schedule may also have resulted in additional bid prices since the constructability review general indicated that it would have required the contractors to implement acceleration strategies in comparison to customary means and methods that should be anticipated for the Project. As a result, the need to extend HDR's contract and fees is a result of the constructability review and the strategies to develop a final construction schedule that reduced the likelihood of construction conflicts and of acceleration costs.

The scope of HDR's construction management agreement calls for full time on-site contract administration and inspection by a team of professionals to manage the $65 million in construction contracts. The extended construction schedule has reduced some of HDR's costs, on a monthly basis, from what was originally estimated – for example, the required number of tests of certain materials are spread out over a longer schedule. However, much of the costs are for staffing of engineers and inspectors who are dedicated to the Project for the duration of the contracts and are relatively fixed costs. The fixed costs in the approved agreement were assumed to be provided for 18 months, but are now required for up to 30 months. A graphic comparing the costs of the planned 18 month schedule to the actual 30 month schedule is provided in the chart, below.



Lateral Impacts

Lateral change requests from individual property owners have also resulted in cost increases for the construction management services. The cost impacts of these changes to the construction management team are more than $500,000 and due in large part to the additional survey efforts, as the lateral locations are staked multiple times. The location of the sewer lateral to each property was based on the Los Osos Community Services District's 2005 project, with considerable input from property owners on their preferred location of the lateral. The County's design process reviewed the laterals to ensure that they would function properly, and included additional outreach to property owners. However, after the start of construction, the project team began receiving a significant volume of requests from property owners to confirm or relocate the lateral connect point. To date, there have been about 850 requests to relocate laterals. The project team, including HDR and the surveying sub-consultant, has worked to accommodate almost all of the requests, since this is the single interface that exists between the project and most properties.

In summary, the requested amendment is necessary to continue HDR's construction management services through the end of collection system construction in order to administer the contract, inspect the work, and coordinate with the public in Los Osos. The not-to-exceed amount of $9,732,275 establishes a revised budget to meet the

actual schedules in the construction contracts. The amount of the amendment, $2,840,642, includes the utilization of $794,663 in existing contingencies that were approved by your Board in the original agreement, resulting in a net increase of $2,045,979 to the budget line time for HDR's construction management for the collection system.